

## MAJOR PROGRAM PERFORMANCE

**DOT STRATEGIC GOAL: SAFETY** 

Promotes the public health and safety by working toward the elimination of transportation-related deaths, injuries, and property damage.

The safety of America's transportation system is our top priority. Virtually all of our programs are designed to influence or encourage safety. DOT provides national leadership in transportation safety, integrating the efforts of all partners to advance our common goal – to minimize the cost to society of transportation-related fatalities, injuries and incidents.

### **HIGHWAY SAFETY**

Through the efforts of NHTSA and FHWA, we administer safety programs, promote vehicle and highway infrastructure safety standards, test vehicle and equipment compliance, investigate defects, conduct research in technology and human factors relating to safety, maintain data on transportation incidents, injuries, and fatalities, and develop and enforce safety regulation on commercial motor vehicles. In addition, DOT conducts research and development programs to improve the tools we have to make the system safer.

NHTSA and FHWA also partner with States to promote education, legislation, enforcement programs, and infrastructure improvement through grants and technical assistance, while FRA joins them in addressing crashes at highway-rail grade crossings.

#### **Highway Safety Programs**

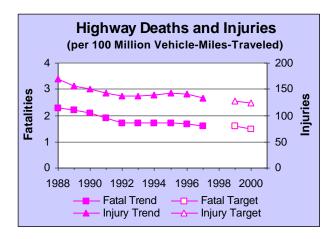
• *Traffic Safety Programs* administered by NHTSA encompass a range of program strategies to reduce crashes and their consequences. NHTSA administers the Safe Communities program which, through

the creation of partnerships, enables communities to identify, understand and address their traffic safety problems. Traffic safety programs also include highway safety research activities, education and outreach efforts, particularly relating to air bag and child safety.

Traffic fatalities account for more than 90 percent of all transportation-related fatalities each year and traffic injuries represent 99 percent of all transportation-related injuries. In 1997 alone, 41,967 Americans died and 3.4 million were injured in motor vehicle crashes. This takes a heavy toll on American families and costs more than \$150 billion in medical and other costs per year.

Vehicle-miles traveled (VMT) increased by 3.2 percent in 1997, a much higher increase than the Department had predicted. The average annual increase in VMT in recent years has been 2.2 percent. This 1997 change, coupled with a decrease in highway-related injuries, greatly reduced the injury rate from 141 in 1996 to 134 in 1997. The calendar year (CY) 1999 target has been changed to reflect an appropriate "stretch" in 1999 gains, and will be attributable mainly to ongoing NHTSA programs.

TEA-21 alcohol and seat belt incentive grants, and such programs as the "Buckle Up America" initiative will help DOT lower the injury rate at a greater pace, but their effects probably will not be seen until 1999.



**Performance Indicator**: Reduce the rate of highway-related injuries per 100 million vehicle miles traveled (VMT).

2000 Goal: 124

1999 Goal: 127

1997 Performance: 134

1996 Baseline: 141

**Performance Indicator:** Reduce the rate of highway-related fatalities per 100 million vehicle miles traveled.

2000 Goal: 1.5

1999 Goal: 1.6

1997 Performance: 1.7

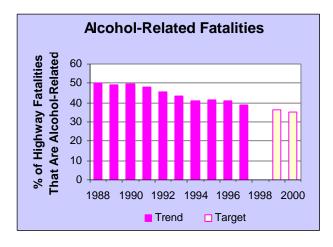
1996 Performance: 1.7

FHWA continues to work with NHTSA to advance the Speed Management Work Plan. They believe that a better understanding of speeding and its implications contributes to reducing the number of speed-related fatalities and injuries occurring on our highways. High priority safety problem areas and associated countermeasure plans are identified by the States.

Highway Safety Grants given to the States include Section 402 Formula Grants Program and Section 410 Alcohol-Impaired Driving Incentive Grants Program:

- Section 402 Formula Grants Program is a performance-based formula program that provides the States with the opportunity to set their own highway safety goals and develop program strategies to meet them. State programs are focused on national priorities including occupant protection, impaired driving prevention, police traffic services, emergency medical service/trauma care, traffic records, pedestrian/bicycle safety, motorcycle safety, speed control and roadway safety. States can use funds to form Safe Communities partnerships to address highway safety problems. By September 30, 1998, over 425 Safe Community programs were underway.
- Section 410 Alcohol-Impaired Driving Incentive Grant Program continues to provide effective incentives to motivate States to implement innovative strategies to reduce drunk and drugged driving. States can receive basic and supplemental grants based on specific actions, such as enactment of laws and implementation of programs to reduce impaired driving. A total of 38 States and the District of Columbia qualified for Section 410 grants in FY 1998.

This program encourages stricter laws and enforcement and better training and outreach to reduce driving that is impaired by drug and alcohol use. Alcohol-related fatalities dropped below 40 percent for the first time in 1997 to 38.6 percent. The 1999 and 2000 goals are to reduce the number of alcohol-related fatalities to 36 percent and 35 percent respectively.



**Performance Indicator**: Reduce the percentage of highway fatalities that are alcohol-related.

2000 Goal: Reduce the number of alcohol-related highway fatalities to less than 35 percent.

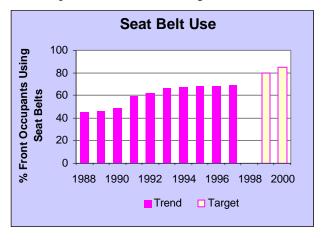
1999 Goal: Reduce the number of alcohol-related highway fatalities to 36 percent.

1997 Performance: Reduced the number of alcohol-related

highway fatalities to 38.6 percent.

1996 Performance: Reduced the number of alcohol-related highway fatalities to 40.9 percent.

Occupant Protection Programs support
the goals outlined in the Presidential
Initiative for Increasing Seat Belt Use
nationwide to 85 percent by 2000.
National safety belt usage is currently
69 percent. In FY 1998, "Buckle Up
America" was initiated to help the
Department achieve these goals.



**Performance Indicator**: Increase the seat belt usage nationwide.

2000 Goal: Increase seat belt use rate to 85 percent.

1999 Goal: Increase seat belt use rate to 80 percent.

1997 Performance: 69 percent.

1996 Performance: 68 percent.

NHTSA continues to implement awareness and education activities concerning safety belt and child safety seat use. NHTSA coordinates the efforts of national organizations to complement new public and private sector efforts to reduce the aggressivity problem of air bags.

• Other Safety Programs work to increase the number of people educated about air bag safety, improve emergency medical services, and focus attention on pedestrians, bicyclists and older and younger drivers. As part of the President's Initiative on Drugs, Driving and Youth, NHTSA establishes strategies to combat youth drug use. In the highway research area, NHTSA continues to investigate and demonstrate methods to control speeding, aggressive driving and other unsafe driving acts, as well as, improve pedestrian and bicyclist safety.

As a result of NHTSA's programs, motor vehicle travel has become safer. Traffic fatalities have decreased from 51,091 in 1980 to 41,967 in 1997. The fatality rate per 100 million vehicle miles has fallen from 3.3 in 1980 to 1.7 in 1997. This has substantially increased the focus on providing technical assistance to the States in developing comprehensive strategies, targeting traffic law enforcement problems, and reducing the human loss and economic costs caused

by traffic crashes. Emerging traffic safety issues such as aggressive drivers, drugged drivers, non-belted drivers and passengers, and red light running drivers, combining with speed create new challenges that make progress more difficult and require innovative strategies and a strong Federal role. The Department's Strategic Plan developed in 1997 guides program priorities. NHTSA's activities tie directly to DOT's Safety strategic goal and make contributions to other Departmental strategic goals.

NHTSA's programs have proven to be cost-effective. A NHTSA analysis of the Department's highway safety programs showed that society receives a return of \$9 for each dollar spent on vehicle and highway safety. Programs administered by NHTSA are funded from the Highway Trust Fund and the General Fund. This funding supports research, highway safety and vehicle programs, and also provides grants to States and the National Driver Register.

# Vehicles & Equipment Compliance Testing

New Car Assessment Program provides consumers with relative crashworthiness information on passenger vehicles. NHTSA conducts frontal and side impact tests at 35 mph and 38.5 mph, respectively, to provide information to consumers for their purchasing decisions. This information also motivates vehicle manufacturers to provide higher levels of occupant protection through market forces. In FY 1998, 70 vehicles were crash tested. Fifty vehicles were tested and rated for frontal protection and 20 for side protection. NHTSA estimates that these tests, when combined with results valid from earlier model years, provided consumers with frontal safety information on 70 percent of model year 1998 vehicles sold in the U.S., and side

impact information on 72 percent of model year 1998 passenger cars. Other vehicle safety information provided to consumers through the *Consumer Information Program*, includes the safety features available on new vehicles, child passenger safety guidelines, and the characteristics and proper use of anti-lock braking systems.

• Vehicle Safety Compliance ensures that all motor vehicles and motor vehicle equipment sold in the U.S. provide the safety benefits intended by Federal safety regulations or qualify for the appropriate exemptions. The compliance program administered by NHTSA incorporates the testing, inspection and investigation necessary to ensure compliance with the performance requirements of Federal Motor Vehicle Safety Standards.

Since the inception of the National Traffic and Motor Vehicle Safety Act in September 1966 through December 1997, 3,402 investigations for possible noncompliance were initiated of which 3,382 have been completed and closed. In addition, from September 1966 through December 1997, civil penalties collected for Safety Act violations totaled more than \$4 million.

Auto Safety Hotline operated by NHTSA serves as the primary contact for consumers to report problems with motor vehicles or motor vehicle equipment that may warrant a safety defect investigation and also to provide consumers with timely information concerning motor vehicle safety such as recall information and general information to increase consumer understanding and awareness of highway safety. The Hotline (1-800-424-9393) received over 700,000 calls from consumers in 1998, seeking information on a wide variety of highway safety issues, from child seat installation, to recalls, to crash data on specific vehicles.

Motor Carrier Safety Assistance
Program (MCSAP) is designed to
improve safety of trucks and buses on the
Nation's highways, and, consistent with
this goal, to reduce the number of
accidents involving trucks. This is done
through a combination of regulations on
both the vehicle and driver, enforcement
of such regulations, and grants to States
for enforcement, all administered through
the FHWA's Office of Motor Carriers.

Regulations cover the full gamut of vehicle-related (e.g., truck size and weight, vehicle systems--such as brakes, maintenance activities, etc.) and driver-related (e.g., hours of service, physical condition, drugs and alcohol, training, etc.) functions.

Enforcement is performed with a combination of Federal and State personnel, including 300 Federal investigators. State enforcement is carried out by a range of State associated enforcement organizations, including State police, highway patrol, public service commissions, and public utility commissions (about 4,000 people).

FY 1998 Commercial Vehicle Safety Inspections				
	#Roadside Inspections	# Placed Out-of- Service	Out-of- Service Ratio	
All Vehicles	2,073,666	431,470	.211	
Non-Hazmat				
Vehicles	1,900,034	386,249	.234	
Hazmat				
Vehicles	139,150	27,369	.179	
Commercial				
Buses	34,482	3,852	.106	
Drivers	2,073,666	161,530	.078	

The MCSAP funds State enforcement of Federal truck and bus safety requirements or compatible State requirements. States may also use MCSAP funds for anti-drug and size and weight enforcement. Total

contract authority for MCSAP in 1998 was \$79 million. A portion of these funds are reserved for national priorities and border enforcement. The remaining funds are distributed to States by formula. Over 2 million different commercial motor vehicles have been inspected for safety in FY 1998. These safety inspections resulted in over 21 percent being taken out-of-service and over 161,000 drivers being placed out-of-service.

During October 1997, the system identified approximately 1500 "high-risk" motor carriers. The new system more effectively focuses FHWA compliance review resources toward "high-risk" motor carriers.

### **Safety Defect Investigations Program**

Safety Defect Investigations Program collects, analyses, and acts on information related to safety defects that affect the occurrence and severity of crashes. Investigations are conducted to ensure that manufacturers remove defective vehicles and items of motor vehicle equipment from the Nation's highways. NHTSA also analyzes recalls conducted by manufacturers to determine whether notification to owners, scope of vehicles or equipment covered and remedy performed are adequate. In 1998, there were 332 recalls involving more than 19 million vehicles, tires and pieces of equipment for safety problems. This is the highest number of vehicles recalled in a single year in NHTSA's history. One-fifth of the recall campaigns, representing 70 percent of the vehicles recalled, were influenced by NHTSA investigations.

# Research in Technology and Human Factors Relating to Safety

• Research and Development Programs provide the foundation for improvements in the safety of motor vehicles and driver behavior. One major emphasis of the research program is currently on air bag aggressivity. Airbag research was conducted by the National Transportation Biomechanics Research Center. Research was also conducted on international harmonization, crash avoidance and maintaining and improving the critical data programs administered by the National Center for Statistics and Analysis.

Biomechanics research is concerned with understanding the automotive injury process and developing methodologies capable of evaluating and effecting improvements in crash safety. Part of the research involves analyses conducted at trauma centers through Crash Injury Research and Engineering Network on the human consequences of real world crashes.

Crash Avoidance research is conducted on new conventional vehicle technologies, which are steadily being introduced into the market by vehicle manufacturers. The safety attributes of collision avoidance systems are also evaluated under the Intelligent Transportation Systems program funded in the FHWA budget and administered by the Joint Program Office. Also funded in the FHWA budget is NHTSA's National Advanced Driving Simulator which will be an invaluable tool for evaluating driver-vehicle interactions and advanced driver information technologies, when completed in 2000. In September 1993, President Clinton, Vice President Gore, and the Chief Executive Officers of Chrysler, Ford, and General Motors announced establishment of the Partnership for a New Generation

of Vehicles, which is aimed at strengthening U.S. competitiveness and protecting the environment. The NHTSA portion of the program will ensure that vehicles developed under the program meet existing and anticipated Federal vehicle safety standards.

John A. Volpe National Transportation Systems Center (Volpe Center) provides Federal transportation and logistics expertise in research, analysis. development and deployment of transportation technologies for clients in DOT and other Federal agencies on a feefor-service basis. The Volpe Center also serves as a bridge to industry, academia, and other government agencies to promote innovation in national and international transportation. In FY 1998, the Volpe Center obligated \$205 million on about 300 projects. These projects include an advanced navigation system plan to increase the capacity and safety of the Panama Canal; further enhancements to the Advanced Traffic Management System used by the FAA; improved guidelines of Human Factors engineering for the design and evaluation of cockpit avionics, air traffic control, and high speed rail; and development for DOT's Office of Motor Carrier's safety performance monitoring system called SAFESTAT.

# Transportation Incidents, Injuries and Fatalities Data

The National Center for Statistics and Analysis collects data vital to the vehicle and behavioral programs of NHTSA, FHWA and other Department programs, State and local governments, as well as vehicle manufacturers, insurers and highway safety public interest groups.

- Fatality Analysis Reporting System
   contains data on a census of fatal traffic
   crashes within the 50 States, District of
   Columbia and Puerto Rico.
- NHTSA General Estimates System (GES) data are obtained from a nationally representative probability sample selected from all police-reported crashes. Although various sources suggest that about half the motor vehicle crashes in the country are not reported to police, the majority of these unreported crashes involve only minor property damage and no significant personal injury. By restricting attention to police-reported crashes, the GES concentrates on those crashes of greatest concern to the highway safety community and the general public.
- National Driver Register (NDR) provides a critical transportation safety function by allowing State motor vehicle administrators to communicate with other States to identify problem drivers. The NDR is a central repository of identification information on individuals whose license to operate a motor vehicle has been revoked, suspended, canceled or denied in any State and is used by other transportation-related organizations such as the FAA, FRA, USCG, air carriers and employers in making licensing or certification decisions.
- Other Data Programs report statistics on motor vehicle theft and insurance related data, issue rules regarding vehicle theft prevention, set Corporate Average Fuel Economy (CAFE) standards, and support rulemaking actions and consumer information on Uniform Tire Quality Grading.

## Safety Regulations on Commercial Motor Vehicles

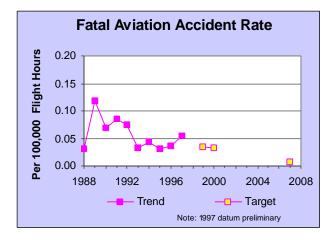
- Odometer Fraud Programs enforce Federal laws and provide funds to States/localities to help them reduce odometer fraud. From 1989 through 1997, States completed 627 investigations and recovered more than \$1.4 million in restitution.
- Vehicle Safety Standards Program seeks to improve the crash avoidance and crashworthiness performance of motor vehicles through regulatory and non-regulatory alternatives. The program responds to rulemaking petitions and uses real world crash data, testing information, and studies on the costs of vehicle safety systems to support the development of and amendments to Federal motor vehicle safety standards (FMVSS). Work continues on advanced air bag performance, the development of an offset frontal test standard, and harmonization of vehicle safety standards with those of other countries.

#### AVIATION SAFETY

The FAA provides a safe, secure, and efficient global aerospace system that contributes to national security and the promotion of U.S. aerospace safety. In fulfilling this mission, FAA manages and supports the operations, facilities, and equipment that provide the air traffic services of the National Airspace System (NAS). FAA also develops necessary regulations, and sets technical standards. FAA licenses and oversees commercial space launches and the operation of commercial and state-sponsored launch sites. In addition, FAA conducts research to improve aerospace system safety, and provides grants for airport development in safety related areas.

In its position on the front line of aviation safety, the FAA works with contractors, the air transportation industry, the academic community, other agencies at the Federal, State, and local level, and with its international counterparts to identify root causes of accidents, and intervenes to prevent potential causes of accidents. As a result, the fatal accident rate is very low. By 2007, the FAA aims to reduce the U.S. aviation fatal accident rate by 80 percent from the 1996 levels.

The goal of this wide-ranging collaboration is to provide a technically advanced airspace system that meets the highest attainable levels of safety.



<b>Performance Indicator</b> : Reduce the fatal aviation accident rate for commercial air carriers per 100,000 flight hours.			
2000 Goal:	Commercial Air Carriers	0.033	
1999 Goal:	Commercial Air Carriers	0.034	
1994-96 Baseline:	Commercial Air Carriers	0.037	

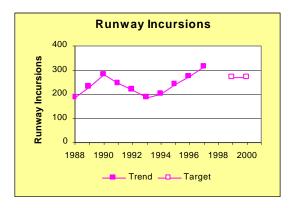
# Operations, Facilities, and Equipment

 Air Traffic Services employees provide an integrated set of services to ensure that each aircraft operation is safe from the time pilots begin pre-flight activities until they shut down the aircraft at their destination. Air traffic controllers at local airports direct airplanes that are taking off, landing, or flying within the visual range of their tower – usually about 5 miles. Controllers in terminal radar control facilities handle aircraft for one or more airports in a large metropolitan area, generally within 30 to 40 miles of the area's major airport. Controllers at 21 en route centers guide airplanes in flight from one city to another. Flight service stations (FSS) provide flight plan filing, weather data, and information briefings to pilots. These services are available to civil and military users, 24-hours a day, 365 days a year. A staff of highly skilled engineers and system specialists maintain and troubleshoot over 39,000 items of equipment, software, and hardware; assign and protect more than 40,000 aeronautical radio frequencies; and conduct some 11,000 flight inspections annually to ensure the safe operation of the Nation's air traffic control systems.

On a typical day, FAA controllers handle approximately 174,000 takeoffs and landings, moving some 1.5 million passengers, and the number continues to grow. The FAA annual aviation forecast, released in March 1998, predicts that U.S. commercial air carrier passenger enplanements will grow from 595 million in 1997 to 924 million in 2009 – an annual growth rate of 3.5 percent over the next dozen years. During the same period, the number of aircraft operations handled is forecast to grow 1.5 percent annually, for a projected total of 75.4 million in 2009.

In FY 1998, FAA continued to test and phase in new automation products to assist controllers in meeting the growing demand for air traffic services safely and efficiently. These include tools to aid in sequencing aircraft, conflict detection, and collaborative decision making.

Reducing the number of runway incursions by 15 percent in 1999 is one of DOT's aviation safety goals. The 1997 baseline was 318 total. Growth in aviation operations has averaged over 1 percent per year. With an increased tempo of operations, the risk of incursions increases. Runway incursions are most likely to occur at complex, high volume airports. These airports are characterized by multiple parallel or intersecting runways; multiple taxiway/runway intersections; complex traffic patterns; and the need for traffic to cross active runways.



Performance Indicator: Reduce the number of runway incursions to a level of 15 percent below the 1997 baseline.

2000 Goal: At or below 270 incursions.

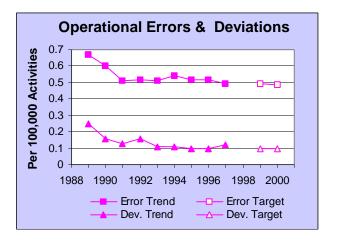
1999 Goal: At or below 270 incursions.

1997 Baseline: 318

DOT aims to reduce incursions by providing technologies that use multiple sensors including ground radars and automatic position reporting systems to detect the location of aircraft and vehicles, airport surface navigation aids, and enhanced software for detecting conflicts between aircraft on the runway and approaching aircraft, and signals at key points to warn pilots and ground equipment operators not to cross active runways.

Reducing the rate of operational errors and deviations to 0.496 or less and 0.099 or less, respectively, in 1999, is another aviation safety goal. The 1994 baseline was 0.54 (errors) and 0.11 (deviations). Operational errors and deviations are a result of human error. Studies have shown that five factors are significant: traffic management relationships, quality assurance programs, training, management involvement, and control room environment.

One of the major approaches to reducing operational errors and deviations is to provide a common level of understanding of procedures and policies among controllers and users. Training for controllers and pilots is central to this and will continue to be the focus of Air Traffic service safety strategy. Technological improvements such as deployment of modern displays, new software automation and decision tools, and improved communication systems will support better determination of aircraft location and resolution of potential conflicts between aircraft.



Performance Indicator: Reduce the rate of operational errors and pilot deviations per 100,000 activities by 10 percent from the 1994 baselines.

2000 Goal: Decrease the rates by 10% from 1994.

Pilot Deviation Rate - 0.097

Operational Error Rate - 0.486

1999 Goal: Pilot Deviation Rate - 0.099

Operational Error Rate - 0.496

1994 Performance: Pilot Deviation Rate

Operational Error Rate 0.54

# Regulations and Technical Standards for Equipment and People

As part of its safety oversight mission, the FAA certifies airports serving air carrier operations and inspects those airports for compliance with established safety standards. FAA oversees the safety of planes and the credentials and competency of pilots and mechanics, develops mandatory safety rules, and sets high standards for civil aviation. Each year, the FAA performs more than 347,000 inspections and investigations and takes approximately 12,000 enforcement actions, helping to make air travel among the safest modes of transportation. The FAA also evaluates foreign governments' oversight of their airlines serving U.S. airports. These results are published in FAA press releases so that the public can know which countries meet international safety standards.

Two new initiatives were announced during FY 1998 to raise the bar on safety. Safer Skies, a focused data-driven safety agenda, seeks out the root cause of accidents, then targets resources to find and apply the right interventions. As part of the Safer Skies agenda, the FAA, in July 1998, provided expanded guidance for passengers and airlines on carry-on baggage regulations. The agency also announced that, at the close of FY 1998, it had doubled the number of cabin safety inspectors, assigning, for the first time, one for each of the major carriers. Also, in July, the FAA proposed eight airworthiness directives that call for the industry to inspect engine parts more closely, using new methods developed through FAA and industry research. Early that month, the FAA proposed new measures to reduce potential ignition sources in Boeing 747 center wing tanks. And, in August 1998, the FAA announced a proposed rule that will require all airplanes with turbine engines and six or more passenger seats to carry a terrain awareness warning system. The Air Transportation Oversight System (ATOS), announced on October 1, 1998, complements the Safer Skies agenda, and will change how the FAA oversees and inspects air carriers.

## **Commercial Space Launches**

This program oversees the safety of commercial space launches and regulates the growing commercial space industry. The Office of Commercial Space Transportation licenses commercial space launches that take place in the U.S. or are conducted by U.S. citizens anywhere in the world. In January 1998, the FAA issued a space launch site operator's license to the Virginia Commercial Space Flight Authority to operate a commercial spaceport at NASA's Wallops Flight Facility at Wallops Island, Virginia. The FAA had previously issued similar licenses to facilities at Vandenberg Air Force Base, California, and Cape Canaveral Air Station, Florida, On September 8, 1998, the 100<sup>th</sup> U.S.-licensed commercial space launch occurred from Vandenberg Air Force Base, marking a milestone for what has become one of the fastest growing U.S. industries. The landmark launch was a Delta II launch vehicle which carried five satellites for the Iridium global wireless telephone system into low earth orbit.

# Grants for Airport Development in Safety Related Areas

Airports, like the airlines, are vital links in the air transportation network. The FAA works in partnership with airport authorities, local units of government, metropolitan planning organizations, and States to revitalize and expand the Nation's airports.

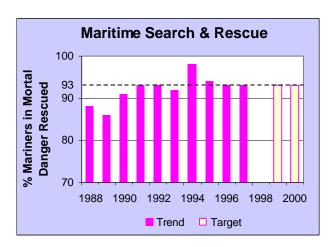
In FY 1998, airport planning personnel awarded an estimated \$1.7 billion in grants to eligible airports to enhance capacity, improve safety and security, and mitigate noise. The collection of passenger facilities charges (PFC) provides an additional source of funding for airport expansion and preservation. PFC's, which must be approved by the FAA, currently produce revenue for airports totaling approximately \$1.2 billion each year. In order to increase the investment options available to airports, the Clinton Administration has proposed raising the cap on PFC's from \$3 to \$5.

#### MARITIME SAFETY

The USCG responds to protect life and property at sea and provides technical and grant assistance for State programs in search and rescue and boating safety. The Coast Guard (CG) also maintains a volunteer force—the CG Auxiliary—to cost effectively advance recreational boating safety though courtesy examinations and training. The USCG also develops necessary safety regulations and standards; inspects for compliance; investigates incidents; licenses mariners; provides navigation systems; provides vessel traffic services (for select U.S. ports), and conducts research and development to advance maritime safety.

## **Search and Rescue Program**

• Search and Rescue Program provides assistance to people or property in distress or in danger on the water. To accomplish this program, USCG employs vessels and aircraft to conduct searches and provide on-scene assistance. USCG has a policy of employing commercial search and rescue services, if available, where neither life nor property is in immediate danger. In 1997, the USCG saved 4,500 lives and nearly \$2 billion in property as a result of their notification.



**Performance Indicator:** Percentage of mariners reported in life-threatening danger that are rescued.

1999 Goal: Save 93 percent or more.

1996 Performance: Saved 93 percent.

The USCG Auxiliary is an active, civilian, and volunteer organization that was established in 1939. The approximately 50,000 members are experienced boaters, and amateur or licensed pilots using their own assets. The USCG Auxiliary is a cost-effective supplement to the search and rescue and boating safety missions.

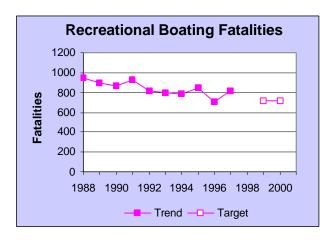
## **Marine Safety Program**

- Marine Safety Program consists of two subprograms, the Commercial Vessel Safety Subprogram and the Recreational Boating Safety Subprogram (RBS). The goal of the Marine Safety Program is to minimize deaths, injuries, property loss and environmental damage by developing safety standards for the design, construction, maintenance, and operation of U.S. commercial ships and offshore facilities such as oil drill rigs and for making grants to States for support of education, outreach and law enforcement programs.
- Commercial Vessel Safety Subprogram includes merchant vessel licensing, inspections and review of plans for new ship construction. To accomplish this, the USCG conducts annual safety inspections of these vessels and facilities. The USCG also issues Certificates of Documentation (similar to car registrations) for these vessels and facilities.

Various laws, including the Omnibus Budget Reconciliation Act of 1990, authorized the USCG to charge user fees for various marine safety activities such as the inspection of vessels. USCG collected approximately \$26.4 million in FY 1998. This amount represented the total cost to the USCG for conducting these services. The amount of user fees collected over the last 6 years was approximately \$136.2 million.

Recreational Boating Safety Subprogram is designed to minimize fatalities, injuries, and property damage among the Nation's recreational boaters. The program is authorized to receive up to \$70 million per year of Federal gasoline taxes attributable to motor boat use. Half of the amount is authorized to offset a portion of the Coast Guard's operating expenses for RBS services to the public (There are over 20 million recreational boats in the U.S.). The remaining half is authorized for grants to assist participating States in developing and carrying out State RBS programs. For FY 1998, Congress appropriated only the \$35 million for grants to the States.

Under provisions of the Clean Vessel Act of 1992, the amount available for State RBS grants through appropriation from the Boat Safety Account was supplemented by a transfer of \$20 million from the Secretary of the Interior to the Secretary of Transportation.



**Performance Indicators:** Reduce the number of recreational boating fatalities per 100 numbered (registered boats).

2000 Goal: Reduce the number to 720 fatalities or less.

1999 Goal: Reduce the number to 720 fatalities or less

1997 Performance: 819 fatalities.

1996 Performance: 714 fatalities

The fatality rate has dropped from 28.7 per 100,000 estimated recreational boats when the program was created by the Federal Boat Safety Act of 1971. However, the number of fatalities reported to the USCG increased from 714 in 1996 (6.0 fatalities per 100,000 registered boats) to 819 (6.7 per 100,000 registered boats) in calendar year 1997.

### RAIL SAFETY

FRA sets and enforces safety standards, investigates major train accidents, assists the rail industry in training its workforce on safety laws, and conducts research in technology and human factors (such as fatigue counter measures) relating to safety and promotes infrastructure improvements through grants to the AMTRAK. In addition, FRA joins with NHTSA and FHWA in saving lives through improved safety by educating the public on the dangers associated with highway-rail grade crossings.

# Public Education on the Dangers Associated with Highway-Rail Grade Crossings

FRA pursues its safety programs through vigorous public outreach that makes people aware of the danger of highway-rail crossings as well as trespassing on railroad rights-of-way.

 School Bus Safety Alert was released nationally in 1998, to educate bus drivers about safety at rail crossings. This alert also served as the base for an alert being created for specific audiences such as truck drivers and drivers of vans and small buses used for transporting small groups. During FY 1998, FRA cooperated with the American Truckers Associations (ATA) to develop a Truck Driver Safety Alert. As with the School Bus Safety Alert, the Truckers Alert is a ONE DOT effort with the FHWA, NHTSA, and the FTA. The Truckers Alert was also used by FRA Region Four's crossing manager and the ATA to educate truck drivers about safety at rail crossings.

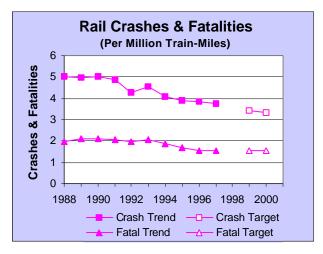
During FY 1998 FRA has continued to work with the Operation Lifesaver, Inc., (OLI) to promote outreach and public awareness of highway-rail crossing safety and trespass prevention programs and initiatives in order to reduce accidents and casualties. In FY 1998, grants to the OLI totaled \$102,800.

FRA Sponsored Roundtable chaired by the Secretary of Transportation was established to focus on developing best practices and a coordinated national campaign to reach professional drivers with life-saving messages. The roundtable consists of 30-40 key partners from other agencies and the railroad industry. The roundtable presents an excellent opportunity for DOT to partner with the National Transportation Safety Board (NTSB) and to work effectively as ONE DOT through the Safety Council.

#### **Rail Safety Standards**

• Railroad Safety Program protects railroad employees and the public by ensuring the safe operation of passenger and freight trains. Program efforts are directed to the enhancement of railroad safety through various programs and activities. These activities include the issuance and enforcement of safety regulations, investigations of train accidents, training of industry workers on safety laws, educating the public on dangers associated with railroading, and research and other cooperative efforts with industry to advance safety. FRA's

Safety Office has established specific safety goals.



**Performance Indicator:** Reduce the rate of rail-related fatalities per million train-miles.

2000 Goal: Reduce the rate to 1.54 or less.

1999 Goal: Reduce the rate to 1.57 or less.

1995 Performance: 1.71

**Performance Indicator:** Reduce the rate of rail-related crashes per million train-miles.

2000 Goal: Reduce the rate to 3.32 or less.

1999 Goal: Reduce the rate to 3.44 or less.

1995 Performance: 3.91

During FY 1998, 638 railroads submitted accident and incident reports to FRA. These reports documented the railroad industry's accidents and incidents and are used by FRA to track the agency's performances.

### **Rail Industry Outreach**

FRA's safety program includes 393 field safety inspectors and trainees. Inspectors and trainees are organized by five discipline areas -- motive power and equipment (MPE); operating practices; track; signal and train control; and

hazardous materials (Hazmat). Safety inspectors are directly involved in monitoring the railroads to ensure that they are complying with Federal safety rules and regulations. During FY 1998 safety inspectors submitted 38,121 inspection reports that identified over 122,772 safety defects.

## **High Speed Ground Transportation Safety**

During FY 1998 FRA's Next Generation High-Speed Rail Program activities included developing, demonstrating, and validating cost effective high-speed (125-150 mph) passenger rail technology for existing infrastructures; reducing upgrade costs for high-speed tracks to \$2-3 million per mile; and making proven technology and methods available to States for high-speed rail implementation. Other goals involve three major areas:

Non-Electric Locomotive Area. FRA will demonstrate a self-contained locomotive unit with acceleration capabilities comparable to electric locomotives and without substantially increasing track forces, noise, or emission levels over conventional fossil fuel units.

*Grade Crossing Hazards*. FRA will demonstrate high-speed passenger operations on existing corridors on which grade crossings remain in place, but at safety levels equal to or better than present levels for conventional speeds.

*Track Structure*. FRA will demonstrate construction at 75 percent or less of present construction cost and track structures to withstand both heavy freight and high-speed passenger usage with cost no higher than what the present conventional practice permits.

### **Train Control Initiatives**

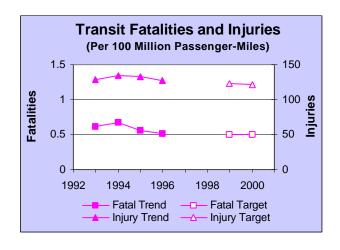
Under the Nationwide Differential Global Positioning System (NDGPS) Program, FRA expects to reduce the frequency of train collisions and over-speed accidents by a factor of 100 on lines where Positive Train Controls are installed. Specific outputs and outcomes are also being developed with the FHWA and the USCG. The USCG will serve as the lead agency for installing, operating, and maintaining the NDGPS network.

### TRANSIT SAFETY

## **Safety Related Programs**

The strategy for reducing the number of transitrelated fatalities, injuries and incidents is to: implement policies and undertake activities (research, training, technical assistance, information dissemination, and oversight) that encourage transit decisions, practices, programs and operations which will have an impact on improving transit safety, improve and maintain the condition of the transit infrastructure (vehicles, tracks, and facilities) that has an impact on overall system safety and performance, and promote activities that increase the attractiveness of transit as a modal choice instead of other modes of transportation with higher accident and fatality rates.

FTA's goal is to reduce fatalities, injuries and incidents per 100 million transit passengers miles by one percent per year based on 1996 rates. As a result, in previous years, the rate of transit fatalities, injuries and incidents per 100 million passenger miles has declined.



**Performance Indicator**: Reduce the transit injury rate per 100 million transit passenger miles.

2000 Goal: Reduce the rate of injuries to 122 per 100 million transit passengers miles.

1999 Goal: Reduce the rate of injuries to 123.2 per 100 million transit passengers miles.

1996 Performance: 127 transit related injuries.

**Performance Indicator**: Reduce the transit fatality rate per 100 million transit passenger miles.

2000 Goal: Reduce the rate to 0.50 fatalities or less per 100 million transit passenger miles.

1999 Goal: Reduce the rate to 0.50 fatalities or less per 100 million transit passenger miles.

1996 Performance: 0.52 fatalities per 100 million transit passenger miles.

# PIPELINE & HAZARDOUS MATERIALS TRANSPORTATION

Research and Special Programs Administration (RSPA) develops safety regulations and standards for the transportation of hazardous materials (classifying, handling, and packaging); maintains the Nation's largest database of hazardous materials information and incidents: conducts compliance inspections; provides special permits and approvals to support shippers needs; conducts hazardous materials research; and provides training, technical and grant assistance for States, territories and Indian tribes to supplement programs in hazardous materials emergency preparedness. RSPA also develops safety regulations and standards for oil and natural gas pipelines. RSPA reviews operator incident response plans and exercises and provides technical and grant assistance to States to conduct inspections and improve pipeline safety.

### **Hazardous Materials Programs**

Hazardous Materials (HAZMAT) Safety **Program** identifies hazardous materials and works with shippers and carriers who offer transportation or transport hazardous materials by highway, rail, water or air. In addition, RSPA coordinates its activities with national authorities through the United Nations Committee of Experts on the Transport of Dangerous Goods, especially with Canada and Mexico through the North American Free Trade Agreement, as well as with other Federal departments and agencies, State, and local government agencies. The scope of RSPA's HAZMAT activities include materials classification, packaging, hazard communication, operating practices, response planning, and HAZMAT employee training. The HAZMAT safety program employs risk management concepts. The Hazardous Materials Regulations prescribe, to the maximum extent possible, performance standards that permit the use of long-proven materials and technologies, as well as advanced, state-of-the-art processes and materials developed by the regulated industries that maximize safety while minimizing the cost of compliance.

During FY 1998, RSPA continued its work to improve safety by developing a notice of proposed rulemaking to comprehensively address requirements for the new manufacture, permitted use, and periodic re-qualification of cylinders authorized for use in the transportation of compressed gases.

In September 1998, RSPA adapted its current internet communications capability to conduct an electronic public meeting on an advance notice of proposed rulemaking concerning requirements for the transportation of

infectious substances and genetically modified-microorganisms.

Hazardous Materials Information focus primarily on customer service through its Hazardous Materials Information Center, which assists shippers, carriers. packaging manufacturers, enforcement personnel, and others in their understanding of requirements in order to maximize voluntary compliance. The Center also staffs the statutory mandated toll-free number (1-800-467-4922) to assist shippers, carriers, compliance enforcement officers, and other affected individuals, in their understanding of regulations under certain particular circumstances. In addition, it offers guidance to use when reporting possible violations of any regulation under the Federal Hazardous Material Transportation Law. Regulated hazardous materials include bulk shipments, like gasoline, anhydrous ammonia, and liquid nitrogen, as well as non-bulk shipments, like dynamite, radiopharmaceuticals, and a wide variety of hazardous chemicals used in industrial processes and consumer products.

#### **Pipeline Safety Program**

• *Pipeline Safety Program* ensures the safe, reliable, and environmentally sound operation of the Nation's pipeline transportation system. This national program regulates the design, construction, operation, maintenance, and emergency response procedures pertaining to natural gas and hazardous liquids, pipeline systems and liquefied natural gas (LNG) facilities. RSPA develops, issues, and enforces pipeline safety regulations.

During FY 1998, RSPA successfully applied the risk management program framework collaboratively developed with the pipeline industry, State agencies and public representatives. Office of

Pipeline Safety (OPS) is now working in partnership with participating companies, developing the foundations of company risk management programs that effectively identify and address the highest risks to safety, the environment, and service reliability. As OPS continues approving companies, more States and communities have the opportunity to participate in finding and addressing the kinds of risks that might have been missed in the past. OPS continues making timely reports on demonstration projects available to the public via its Internet-accessible information system, which receives approximately 450 hits per week from the general public.

During FY 1998, OPS designed the System Integrity Inspection (SII) Pilot Program, a more broad-based and comprehensive examination of an operators' safety and integrity program than our traditional inspections allow. OPS believes the SII approach can provide a more nationally uniform focus on pipeline safety issues and greater consistency in oversight of the nation's pipelines. It is designed to help OPS consider individual operators' safety and environmental performance system wide by creating a more flexible environment for information exchange. The SII approach will focus on the most significant and potentially high impact safety, environmental, and regulatory issues.

b Pipeline Inspections of natural gas totaled over 387 and 379 of hazardous liquid pipelines during FY 1998. Other efforts include: damage prevention regulation; and DOT and States efforts to improve damage prevention legislation; and emphasis in our State grant program on improving one-call systems, education and enforcement of existing laws. In August, following passage of One Call legislation within TEA-21, an internal study of damage prevention best practices was initiated to identify and

promote methods of reducing damage to all underground utilities. Pipeline operators, other underground utilities, highway departments, railroads, excavators, municipal governments, trade associations, and academia partner with us in this effort.